

WHAT IS CLAIMED IS:

1. A bearing apparatus of sealing type, comprising:
an inner race dividable in an axial direction;
an outer race dividable in the axial direction;
5 tapered rollers in four rows rotatably disposed between
the inner race and the outer race; and
a sealing device for sealing a space between the inner
race and the outer race; the sealing device having a sealing
body,
10 wherein, when the inner race rotates at low speed, the
sealing body serves as a contacting seal, and
when the inner race rotates at high speed, the sealing
body serves as a non-contacting seal or reduces a contacting
pressure due to deformation thereof by a centrifugal force.
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2. The bearing apparatus as set forth in claim 1,
wherein the sealing device further includes:
an outer race member; and
an inner race member encircled by the outer race member,
20 and
a labyrinth seal is formed between the outer race member
and the inner race member.
3. The bearing apparatus as set forth in claim 1,
25 wherein the sealing device further includes:

an outer race member; and
an inner race member encircled by the outer race member,
and
a labyrinth seal is formed between the outer race member
5 and the sealing body.

4. The bearing apparatus as set forth in claim 1,
wherein the sealing device further includes:
the outer race member; and
10 the inner race member encircled by the outer race member,
and
the outer race member is furnished with a drain passage.

5. The bearing apparatus as set forth in claim 1,
15 wherein the sealing device further includes:
the outer race member; and
the inner race member encircled by the outer race member,
and
the outer race member is defined with a circumferential
20 groove in a bearing outside edge thereof.

6. The bearing apparatus as set forth in claim 1,
wherein the sealing device further includes an outer race
member having a sealing face part extending in the
25 circumferential direction, and

the sealing face part is formed in a cylindrical shape.

7. A bearing apparatus of sealing type, comprising
an inner race;

5 an outer race;

rolling elements rotatably disposed between the inner
race and the outer race; and

a sealing device for sealing a space between the inner
race and the outer race, the sealing device including:

10 an outer race member;

an inner race member encircled by the outer race
member; and

a sealing member furnished between the inner
member and the outer member, the sealing member having:

15 a sealing body attached to the inner race
member; and

a sealing face part disposed on the outer
race member,

wherein, when the inner race member is rotated at a
20 predetermined speed or lower, the sealing body contacts the
sealing face part, and

when the inner race member is rotated at a speed more
than a predetermined speed, the sealing body reduces the
contacting pressure to the sealing face part, or separates from
25 the sealing face part such as to form a non-contacting seal

in conjunction with the sealing face part.

8. The bearing apparatus as set forth in claim 7,
wherein a labyrinth seal is formed between the outer race member
5 and the inner race member.

9. The bearing apparatus as set forth in claim 7,
wherein a labyrinth seal is formed between the outer race member
and the sealing body.
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10. The bearing apparatus as set forth in claim 7,
wherein the inner race member includes: a ring-shaped sleeve,
a substantially disk-shaped holder and a core metal, and
the sealing body is adhered to the core metal and fitted
15 into the holder with a tightening margin.

11. The bearing apparatus as set forth in claim 7,
wherein the outer race member is formed with a drain passage.

20 12. The bearing apparatus as set forth in claim 7,
wherein the outer race member is defined with a circumferential
groove in a bearing outside edge thereof.

13. The bearing apparatus as set forth in claim 7,
25 wherein the sealing face part is formed in a cylindrical shape.

14. The bearing apparatus as set forth in claim 7,
wherein the sealing body is positioned at a side of an interior
space of the bearing with respect to the sealing face part.

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15. The bearing apparatus as set forth in claim 7,
wherein the sealing body is disposed to at least partially
extend in an axial direction of the bearing such as to generate
to the sealing body a centrifugal force for reducing the
10 contacting pressure of the sealing body to the sealing face
part, when the inner race member is rotated.

16. A bearing apparatus of sealing type, comprising:
an inner race having a holding face;
15 an outer race;
rolling elements rotatably arranged between the inner
race and the outer race;
a sealing device for sealing a space between the inner
race and the outer race, the sealing device having a sealing
20 body; and

a holding member fitted to the holding face of the inner
race for detachably holding the sealing body.

17. The bearing apparatus as set forth in claim 16,
25 wherein the holding member is a ring-shaped sleeve.

18. The bearing apparatus as set forth in claim 16, wherein the holding member is a substantially disk-shaped holder.

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